Autonomous Underwater Vehicle Sampling System

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LONG-TERM GOALS

The long-term goal of this project is to acquire a deep-diving autonomous underwater vehicle (AUV) for community use.

SCIENTIFIC OBJECTIVES

The desire is to obtain an AUV that can be transitioned to a shared use piece of equipment with standard optical and physical instruments included. The AUV will be used for studies on the inner shelf, close to the air-sea interface, and close to the bottom.

APPROACH

The approach is to purchase a Bluefin Robotics, Odyssey III AUV (Figure 1) with an additional payload section and set of batteries. Once the AUV is delivered it will be turned over to the OSU Marine Technician Group to operate as shared use equipment. A Wetlabs ac-9 plus is to be integrated into the payload section to provide optical measurements and data logging capabilities.

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Figure 1. A Bluefin Robotics Odyssey III AUV with a configuration similar to that on order for Oregon State University.

WORK COMPLETED

The AUV is presently on order and we expect to take delivery in May 2002. The optical sensors have been acquired and we are presently integrating them into a payload bay.

RESULTS

None

IMPACT/APPLICATIONS

This system has a large potential impact on many studies. The additional areal coverage, the ability to sample undisturbed surface water, and ability to operate in hazardous areas (like under the ice) will greatly increase the sampling capabilities of oceanographic programs. This acquisition also transitions the equipment from the developers to the scientific community.

TRANSITIONS

None

RELATED PROJECTS

None

REFERENCES

None

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PATENTS

None